

New York CAPS Grape Commodity Survey 2013 Third Quarter Summary/Final Report

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- **Grape Commodity Survey (GCS)**
 - *Lobesia botrana* – **European Grape Vine Moth (GVM)**
 - *Adoxophyes orana* – **Summer Fruit Tortrix Moth (SFT)**
 - *Eupoecilia ambiguella* – **European Grape Berry Moth (EGBM)**
 - *Spodoptera littoralis* – **Egyptian Cotton Leafworm (ECW)**

The 2013 grape commodity survey was conducted in conjunction with Cornell Cooperative Extension's NYS IPM Program and Grape Programs in the main growing regions of New York State; Lake Erie, Finger Lakes, Long Island and the Hudson Valley. Traps were placed in vineyards starting in early to mid July in all regions and were serviced biweekly 6 times. The four target moths involved in the survey are: European Grapevine Moth, Summer Fruit Tortrix Moth, European Grape Berry Moth, and Egyptian Cotton Leafworm.

360 traps were deployed in 20 vineyards total; 5 in the Hudson Valley, 5 in Long Island, 5 in the Finger Lakes Region and 5 in the Lake Erie Region. In addition traps were deployed in 5 nurseries total; 3 in the Finger Lakes Region and 2 in the Lake Erie Region.

1. European Grape Vine Moth (GVM) - *Lobesia botrana*

Delta traps and lures were deployed following the protocol of suspending the trap at a height of 3 foot in the grape trellis and at a distance of 6-foot into the 2nd row in from the SW corner of the vineyard. Vineyards that had been recently planted using vines sourced from California, and other west coast, nurseries were given priority for participation in the program. In vineyards consisting of multiple varieties, traps were placed in the southeast corner of each block where the variety changed. Traps were deployed in 5 vineyards in the Hudson Valley (Columbia, Dutchess, Rensselaer, Orange and Ulster Counties) 5 in Long Island (Suffolk County), 5 in the Finger Lakes Region (Schuyler, Seneca, Ontario and Yates Counties) and 5 in the Lake Erie Region (Chautauqua County). In addition traps were deployed in 5 nurseries total; 3 in the Finger Lakes Region and 2 in the Lake Erie Region. 90 traps were placed by 4 project cooperators in these 20 vineyards and 5 nurseries. Traps were maintained in the field and serviced every two weeks resulting in six to seven biweekly visits depending on location. All traps were pulled from vineyards by the end of September/beginning of October to facilitate grape harvest.

343 moths were collected from the traps July through October and prescreening found no evidence of the European Grape Vine Moth.

2. Summer Fruit Tortrix Moth (SFT) - *Adoxophyes orana*

Delta traps and lures were deployed following the protocol of suspending the trap at a height of 3 foot in the grape trellis and at a distance of 6-foot into the 2nd row in from the SW corner of the vineyard. Vineyards that had been recently planted using vines sourced from California, and other west coast, nurseries were given priority for participation in the program. In vineyards consisting of multiple varieties, traps were placed in the southeast corner of each blocks where the variety changed. Traps were deployed in 5 vineyards in the Hudson Valley (Columbia, Dutchess, Rensselaer, Orange and Ulster Counties) 5 in Long Island (Suffolk County), 5 in the Finger Lakes Region (Schuyler, Seneca, Ontario and Yates Counties) and 5 in the Lake Erie Region (Chautauqua County). In addition traps were deployed in 5 nurseries total; 3 in the Finger Lakes Region and 2 in the Lake Erie Region. 90 traps were placed by 4 project cooperators in these 20 vineyards and 5 nurseries. Traps were maintained in the field and serviced every two weeks resulting in six to seven biweekly visits depending on location. All traps were pulled from vineyards by the end of September/beginning of October to facilitate grape harvest.

300 moths were collected from the traps July through October and prescreening found no evidence of the Summer Fruit Tortrix Moth.

3. European Grape Berry Moth (EGBM) - *Eupoecilia ambiguella*

Pherocon 1C traps and lures were deployed following the protocol of suspending the trap at a height of 3 foot in the grape trellis at the end post of the 5th row in from the SW corner of the vineyard and the 5th row in from the SE corner of each vineyard surveyed. Traps were deployed in 5 vineyards in the Hudson Valley (Columbia, Dutchess, Rensselaer, Orange and Ulster Counties) 5 in Long Island (Suffolk County), 5 in the Finger Lakes Region (Schuyler, Seneca, Ontario and Yates Counties) and 5 in the Lake Erie Region (Chautauqua County). In addition traps were deployed in 5 nurseries total; 3 in the Finger Lakes Region and 2 in the Lake Erie Region. 90 traps were placed by 4 project cooperators in these 20 vineyards and 5 nurseries. Traps were maintained in the field and serviced every two weeks resulting in six to seven biweekly visits depending on location. All traps were pulled from vineyards by the end of September/beginning of October to facilitate grape harvest.

1,135 moths were collected from the traps July through October and prescreening found no evidence of the European Grape Berry Moth.

4. Egyptian Cotton Leafworm (ECW) - *Spodoptera littoralis*

Plastic Bucket Traps and lures were deployed following the protocol of suspending the trap at a height of 3 foot in the grape trellis and at a distance of 5-foot into each of the outside rows of each vineyard surveyed. Traps were deployed in 5 vineyards in the Hudson Valley (Columbia, Dutchess, Rensselaer, Orange and Ulster Counties) 5 in Long Island (Suffolk County), 5 in the Finger Lakes Region (Schuyler, Seneca, Ontario and Yates Counties) and 5 in the Lake Erie Region (Chautauqua County). In addition traps were deployed in 5 nurseries total; 3 in the Finger Lakes Region and 2 in the Lake Erie Region. 90 traps were placed by 4 project cooperators in these 20 vineyards and 5 nurseries. Traps were maintained in the field and serviced every two weeks resulting in six to seven biweekly visits depending on location. All traps were pulled from vineyards by the end of September/beginning of October to facilitate grape harvest.

260 moths were collected in the traps from July through October and prescreening found no evidence of the Egyptian Cotton Leafworm.

Virus Sampling in the 2013 CAPS Project

Virus sampling was performed in July and again in September/October of 2013 in the same vineyards and nurseries used to conduct the **GCS**.

Protocol:

- If possible vineyards that are declining and suspected of having problems with viruses were identified and sampled. If that was not feasible, vineyards were chosen at random.
- In each vineyard a panel was chosen with 4-6 vines. In July, 2-3 young leaves were pulled per vine for a total of 15 leaves. Each vineyard was sampled in 4 sites.
- In September/October the same sampling procedure was followed with the exception of selecting mature basal leaves.
- In the nurseries, one young leaf per vine for 15 vines was sampled in July. In September/October mature basal leaves were chosen.
- The leaves were placed in zip lock bags, labeled and sent overnight to the Marc Fuchs lab for testing.

The viruses tested for in the spring sampling were: Grapevine Leafroll – associated virus type 1 (GLRaV-1), type 2 (GLRaV-2), type 3 (GLRaV-3), and type 4 (GLRaV-4); Grapevine Red Blotch – associated virus (GRBaV); Grapevine Fanleaf Virus (GFLV).

The viruses tested for in the fall sampling were: Grapevine Fanleaf Virus (GFLV); Arabis Mosaic Virus (ArMV); Tomato Ring Spot Virus/Grapevine Yellow Vein Disease (ToRSV); Tobacco Ringspot Virus (TRSV); Grapevine Virus A (GVA); Tomato Black Ring Virus (TBRV); Strawberry Latent Ringspot Virus (SLRSV); Raspberry Ringspot Virus (RpRSV); Grapevine Fleck Virus (GFkV); and Grapevine Leafroll – associated virus type 3 (GLRaV-3).

- **Grapevine Fanleaf Virus (GFLV)**. One positive was found in the Long Island region.
- **Arabis Mosaic Virus (ArMV)**. No positive results.
- **Tomato Ring Spot Virus/Grapevine Yellow Vein Disease (ToRSV)**. One positive was found in the Hudson Valley.
- **Tobacco Ringspot Virus (TRSV)**. No positive results.
- **Grapevine Virus A (GVA)** was found in 4 samples – 2 in Long Island and 2 in the Hudson Valley.
- **Tomato Black Ring Virus (TBRV)**. No positive results.
- **Strawberry Latent Ringspot Virus (SLRSV)**. No positive results.
- **Raspberry Ringspot Virus (RpRSV)**. No positive results.
- **Grapevine Fleck Virus (GFkV)**. Found in 7 samples – 1 in Lake Erie Region, 4 in Long Island, and 2 in the Hudson Valley.
- **Grapevine Leafroll – associated virus type 1 (GLRaV-1)**. Found in 13 samples – 3 in the Finger Lakes Region and 10 in the Lake Erie Region.
- **Grapevine Leafroll – associated virus type 2 (GLRaV-2)**. Found in 3 samples – 1 in the Finger Lakes Region and 2 in Long Island.
- **Grapevine Leafroll – associated virus type 3 (GLRaV-3)**. Found in 44 samples – 5 in the Finger Lakes Region, 18 in the Lake Erie Region, 18 in Long Island, and 3 in the Hudson Valley.

- **Grapevine Leafroll – associated virus type 4 (GLRaV-4).** Found in 2 samples – 1 in the Finger Lakes Region and 1 in Long Island.

There were a total of 75 positive results out of 2,197 virus tests completed.

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